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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/668,666	09/22/2000	Carl A. Waldspurger	Vmware8	2255

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EXAMINER	
EL CHANTI, HUSSEIN A	
ART UNIT	PAPER NUMBER
2157	
MAIL DATE	DELIVERY MODE
12/13/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/668,666	WALDSPURGER, CARL A.	
	Examiner	Art Unit	
	Hussein A. El-chanti	2157	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 April 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *2-4,6-9,12-17 and 20-33* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *2-4, 6-9, 12-17 and 20-33* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to RCE filed on April 2, 2007 . Claims 2-4, 6-9, 12-17 and 20-33 are pending examination.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 2-4, 6-9, 12-17 and 20-33 are rejected under 35 U.S.C. 102(e) as being anticipated by Bruno et al., U.S. Patent No. 6,725,456 (referred to hereafter as Bruno).

As to claim 21, Bruno teaches a computer system comprising:

a host system which includes a host operating system and a hardware memory that is addressable in a hardware memory address space (see col. 3 lines 15-55);

at least one virtual computer, each computer includes at least one virtual processor, guest physical memory, and a guest OS operable to address, allocate and de-allocate the guest physical memory in a guest physical address space and is operatively connected to the host system (see col. 3 lines 15-55 and col. 6 lines 55-col. 7 lines 5);

a memory reservation software module located within the virtual computer for receiving a memory quantity request from the host system and for changing the

allocation of the guest physical memory from within the respective guest OS according to the memory quantity request thereby changing the amount of the hardware memory available for arbitrary use by the host system (see col. 3 lines 15-55).

As to claim 2, Bruno teaches the system of claim 21 in which the memory reservation software module is a driver installed within each respective guest operating system (see col. 3 lines 15-55).

As to claim 3, Bruno teaches the system of claim 2 further comprising:

a memory scheduler in the host system for allocating the system memory among the guest systems;

for each guest system, a communications means for communicating a respective memory quantity request to each driver;

each driver being provided for reserving an amount of the system memory corresponding to the memory quantity request (see col. 3 lines 15-55).

As to claim 4, Bruno teaches the system of claim 3 where:

each guest operating system memory reservation means for reserving specified amounts of the system memory (see col. 3 lines 15-55);

the driver is operatively connected to the memory reservation means for communicating the memory quantity request to the memory reservation means; and

the memory reservation means of each guest operating system is native to the guest operating system, all communication between the memory scheduler and the guest systems taking place via the respective drivers, the memory scheduler remaining transparent to the guest systems (see col. 3 lines 56-67).

As to claim 6, Bruno teaches the system of claim 4 where virtual machine monitor forming an interface between the memory scheduler and each respective virtual machine (see col. 3 lines 15-55).

As to claim 7, Bruno teaches the system of claim 4 in which:

the guest operating system changes the amount of the guest physical memory to applications and drivers loaded within and connected to the guest operating system;

upon an increase in the memory quantity request for a specified one of the drivers, the guest operating system reserves a corresponding quantity of memory (see col. 13 lines 35-col. 14 lines 22, col. 19 lines 29-col. 20 lines 2 and col. 12 lines 36-51);

upon a decrease in the memory quantity request for the specified one of the drivers, the guest operating system deallocates a corresponding quantity of physical memory (see col. 3 lines 15-55).

As to claim 8, Bruno teaches the system of claim 21 in which the memory requesting means is further provided for adapting a rate at which it reserves the system memory via the guest operating system to be no greater than a current maximum reservation change rate of the guest operating system (see col. 13 lines 35-col. 14 lines 22, col. 19 lines 29-col. 20 lines 2 and col. 12 lines 36-51).

As to claim 9, Bruno teaches the system of claim 21 in which the memory request mean is a user-level application loaded in the guest system and running on the guest operating system (see col. 3 lines 15-55).

As to claim 12, Bruno teaches a computer system comprising:

a host system which includes a host operating system and at least one system memory;

at least one guest system operatively connected to the host system;

a memory scheduler in the host system for allocating the system memory among the guest systems;

for each guest system, a communications means for communicating a respective memory quantity request to each driver;

each guest operating system provided with memory request means for reserving the system memory from within the respective guest operating system thereby making the memory available to the host system;

the memory request means is a driver installed within each respective guest operating system;

for each guest system, a communications means for communicating a respective memory quantity request to each driver;

each driver being provided for reserving an amount of the system memory corresponding to the memory quantity request;

the driver is operatively connected to the memory reservation means for communicating the memory quantity request to the memory reservation means;

the memory reservation means of each guest operating system is native to the guest operating system, all communication between the memory scheduler and the guest systems taking place via the respective drivers, the memory scheduler remaining transparent to the guest systems;

the system memory is system machine memory;

the guest operating system allocates and deallocates physical memory to applications and drivers loaded within and connected to the guest operating system;

upon an increase in the memory quantity request for a specified one of the drivers, the guest operating system reserves a corresponding quantity of memory;

upon a decrease in the memory quantity request for the specified one of the drivers, the guest operating system deallocates a corresponding quantity of physical memory (see col. 3 lines 15-55 and col. 6 lines 55-col. 7 lines 5).

3. Claims 13-17, 20 and 22-32 do not teach or define any additional limitation over claims 21 and 2-12 and therefore are rejected for similar reasons.

4. This is a RCE of applicant's earlier Application No. 09/668,666. All claims are drawn to the same invention claimed in the earlier application and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the earlier application. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action in this case. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no, however, event will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hussein A. El-chanti whose telephone number is (571)272-3999. The examiner can normally be reached on Mon-Fri 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (571)272-4001. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Hussein Elchanti

Nov. 23, 2007

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